

# Petr Stepanov

UI/UX designer. Frontend and desktop developer.

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## Summary

Ph.D. graduate in physics with 5+ year expertise in user interface (UI) and user experience (UX) design. Strong web application and desktop software development skills. Seeking to apply for a position in the industry. Authorized to work in the US on [Optional Practical Training](#) (OPT expires February 2023). Will consider visa sponsorship offers.

## Computer Skills

**Essentials.** Git, SVN, SSH, Linux, and Terminal usage. BASH scripting. IDEs: Eclipse, Xcode, Visual Studio Code (VS Code). Project Management: JIRA, Trello.

**Desktop.** C/C++ and frameworks: Qt, Fox, CERN ROOT, Geant4. Building from source: GNU make, CMake. Java and Swing. Python.

**Frontend.** HTML and CSS (LESS, SASS), Bootstrap, responsive web design, JavaScript and jQuery, npm, gulp, Google Web Toolkit (GWT), AngularJS, React.js, and Backbone.js.

**Backend.** Java, Node.js, EJS.

**UI/UX design.** Figma, Sketch, InVision Studio, Adobe XD, Adobe Photoshop, Adobe Illustrator, Inkscape, Blasamiq, Blender.

**Apple iOS.** Fundamental Swift skills. User interface development with UIKit and storyboards.

## Work Experience

### C++ Software Developer

[Thomas Jefferson National Accelerator Facility \(JLab\)](#) Jul 2020 - Current

- Applied CERN ROOT framework (C++) to perform statistical analysis of a significant amount (over 100 GB) of the raw experimental data of the [Kaon LT](#) experiment at JLab. [Link to GitHub](#).
- Utilized SLURM environment on [JLab supercomputer environment](#) to run resourceful particle simulations on multiple computing nodes at the same time. This decreased the wall computation time by more than 10 times.
- Proposed and implemented RAMDisk functionality on the development environment. This led to an over 60% increase in source code indexing time.
- Set up data acquisition system that performs triggered waveform acquisition from Tektronix oscilloscope to a local Network Attached Storage (NAS) device. RedHat, Ethernet, SAMBA,

Python, National Instruments VISA library.

- Active collaborator of the [Pion LT project](#). Committed more than 50 shifts performing Target Operator and Shift Leader duties in the experimental Hall C counting room.

## **Software Developer (Postdoctoral Researcher)**

[Catholic University of America \(CUA\)](#), Jul 2020 - Current

- Applied Machine Learning (ML) TMVA framework to perform binary classification of thousands of signals from a data acquisition (DAQ) setup. [Link to GitHub](#).
- Developed a computer simulation based on the Geant4 framework (C++, CMake, Eclipse IDE, gdb) to study optical properties of a novel scintillation material to be used in the EIC detector system. [Link to GitHub](#).
- Teaching experience: mentoring students within a 3-month Research Experiences for Undergraduates (REU) program at the Physics Department at CUA. Giving talks and presentations about [Linux Terminal](#), and [supercomputer environment](#).
- Enhanced debugging of the core library source code lead to opening more than [10 bug reports](#) on the ROOT (C++) forum.

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